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Remarks

Claims 1-29 are pending in the application.

Claims 1-23 are objected to for various informalities.

Claim 9 is rejected under 35 U.S.C. 112, ¶1, as failing to comply with the written description requirement.

Claim 9 is rejected under 35 U.S.C. 112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-8, 10-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen (U.S. Patent No.: 6,567,380, hereinafter "Chen) and RFC 1771 as extrinsic evidence which is incorporated by reference per col. 5, line 59 to 61.

Each of the various rejections and objections are overcome by amendments that are made to the specification, drawing, and/or claims, as well as, or in the alternative, by various arguments that are presented.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, since a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims

has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewriting to include the limitations of claims that previously depended from it. Thus, by such rewriting no equivalent of any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

Objections

Claims 15-23 are objected to because of informalities. The objection is traversed.

With respect to the objection to claims 15, 16, 19, 20, and 23, Applicants have herein amended the claims from "adapted to" to "means for".

With respect to the objection to claims 16-18 and 20-22, the Examiner asserts that the same apparatus does not transmit and receive the same reason information associated with itself, concluding that there is inconsistent use of the term "reason information". Applicants respectfully disagree.

Applicants' claim 15 includes the limitation "transmitting reason information associated with a route update or withdraw to neighboring apparatuses." Applicants' claim 16 includes the limitation "receiving reason information associated with a received update or withdraw." Thus, Applicants' claims do not just recite transmitting reason information and receiving reason information. Rather, Applicants' claims include modifying words which clearly distinguish between transmitted reason information and received reason information. Thus, Applicants submit that use of the term "reason information" is not inconsistent.

With respect to the objection to claims 27-29, the Examiner asserts that the same apparatus does not transmit and receive the same reason information associated with itself, concluding that there is inconsistent use of the term "reason information". Furthermore, the Examiner asserts that because the instructions are in different devices they are different instructions. Applicants respectfully disagree.

Applicants respectfully note that, as described in Applicants' specification, network devices exchange route updates and withdraws. Thus, each network device can both transmit route updates and withdraws (including reason information) to one or more

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other network devices, and each network device can also receive route updates and withdraws (including reason information) from other network devices. Applicants submit that since each network device can both transmit and receive route updates and withdraws including reason information, a single device may include instructions for transmitting reason information as part of route updates and withdraws, and may also include instructions for receiving reason information as part of route updates and withdraws. Furthermore, for at least the reasons discussed hereinabove with respect to claims 16-18 and 20-22, Applicants respectfully submit that use of the term "reason information" is not inconsistent.

Therefore, the objection should be withdrawn.

Rejection Under 35 U.S.C. 112, First Paragraph

Claim 9 is rejected under 35 U.S.C. 112, ¶1, as failing to comply with the written description requirement. The rejection is traversed.

Support for claim 9 may be found at least on Page 15, Lines 27-32, of Applicants' specification as originally filed. Specifically, Applicants' specification states that "...in alternate embodiments of the present invention, the risk of a route remaining erroneously in the transient set for too long is overcome by an inventive aging procedure. That is, an upper bound on the time a route remains in the transient set is determined, and a timer mechanism is used to un-mark a transient route if an update is not received within this upper bound time." In other words, a predetermined upper bound of time is used in order to bound the amount of time that a route is considered transient where an update has not been received. If an update is not received within the upper bound time, a route marked a transient is un-marked, i.e., it is switched back from being marked as transient to being marked as stable.

Therefore, the rejection should be withdrawn.

Rejection Under 35 U.S.C. 112, Second Paragraph

Claim 9 is rejected under 35 U.S.C. 112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

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Applicants respectfully submit that the limitation is clear, especially when read in light of Applicants' specification. From claim 7, from which claim 9 depends, a candidate route is considered as a transient route if the receiving node determines from reason information that the candidate route is to be updated or withdrawn. As described in Applicants' specification, a candidate route is considered as a transient route when, based on reason information, it is determined that the route is likely to be updated or withdrawn in the near future. (Specification, Pg. 3, Lines 4-5). As further described in Applicants' specification, a predetermined upper bound of time is used to bound the amount of time that a route is considered transient where an update has not been received. Specifically, Applicants' specification states that "...in alternate embodiments of the present invention, the risk of a route remaining erroneously in the transient set for too long is overcome by an inventive aging procedure. That is, an upper bound on the time a route remains in the transient set is determined, and a timer mechanism is used to un-mark a transient route if an update is not received within this upper bound time." (Specification, Pg. 15, Lines 27-32). Thus, Applicants respectfully submit that it is clear that if the route is not updated within the predetermined amount of time, the route that was previously considered to be a transient route is then considered to be a stable route.

Therefore, the rejection should be withdrawn.

Rejection Under 35 U.S.C. 102

Claims 1-8, 10-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen (U.S. Patent No.: 6,567,380, hereinafter "Chen) and RFC 1771 as extrinsic evidence which is incorporated by reference per col. 5, line 59 to 61. The rejection is traversed.

Chen fails to teach or suggest "transmitting reason information associated with a route update or withdraw," as claimed in Applicants' claim 1. Rather, Chen merely teaches that the reason for the change in the best path of a route is identified and recorded using change flags, and that the change flags are then considered, in combination with the characteristics of a neighbor router, in order to determine whether or not a route update for the route should be sent to the neighbor router. In other words, Chen discloses that a router identifies how a route has changed and compares how the route has changed with

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configuration information for a neighbor router in order to determine whether or not a route update needs to be sent to that neighbor router. Thus, in Chen, the "reason" information (which, according to Chen, is only a description of what has changed for the associated route) is not exchanged between routers; rather, the "reason" information is identified and stored locally at a router for use by the route in determining whether or not to send a corresponding route update to neighboring routers. By contrast, Applicants' claim 1 claims "transmitting reason information associated with a route update or withdraw." Therefore, Chen fails to teach or suggest each and every element of Applicants' claim 1.

More specifically, as taught in Chen, upon receiving a route update, the router receiving the route update evaluates the route update and determines exactly what has changed for the route by comparing the previous version of the route and the new version of the route. The router then records that information in its routing table (in the modified routing table entry 900 of FIG. 9 of Chen). The router records the route change information (or "reason" information as it is referred to in Chen) using change flag fields 920 of the modified routing table entry 900. The router also maintains a neighbor table (the neighbor table 800 of FIG. 8 of Chen) including information about a neighbor router. As further disclosed in Chen, "...the router examines the state of flag 928 and, depending upon the configuration parameters stored in configuration field 808 of neighbor table 800 for the receiving neighbor, determines whether a routing update message needs to be generated for that neighbor." (Chen, Col. 7, Lines 51 – 56).

In other words, Chen clearly discloses a process by which a router evaluates a route to identify route change information and then evaluates the route change information in combination with information about the configuration of a neighbor router in order to determine whether the route update needs to be propagated to that neighbor router. The evaluation of route change information and neighbor router configuration information, as taught in Chen, is simply not transmitting reason information associated with a route update or withdraw, as claimed in Applicants' claim 1. Chen is devoid of any teaching or suggestion of "transmitting reason information associated with a route update or withdraw," as claimed in Applicants' claim 1.

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PAGE 11/13 * RCVD AT 7/20/2007 10:43:07 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-5/12 * DNIS:2738300 * CSID:+17325309808 * DURATION (mm-ss):02-14

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Furthermore, RFC 1771, alone or in combination with Chen, fails to teach or suggest "transmitting reason information associated with a route update or withdraw," as claimed in Applicants' claim 1. Rather, RFC 1771 merely discloses Border Gateway Protocol 4 (BGP-4). Specifically, in the Office Action, the Examiner cites Pgs. 36 and 38 of RFC 1771, however, the cited portions of RFC 1771 merely describe route selection and route dissemination according to BGP-4, including handling of overlapping routes. RFC 1771 is devoid of any teaching or suggestion of "transmitting reason information associated with a route update or withdraw," as claimed in Applicants' claim 1.

Anticipation requires the presence, in a single prior art reference, disclosure of each and every element of the claimed invention, arranged as in the claim. Chen and RFC 1711, alone or in combination, fail to disclose each and every element of the claimed invention, as arranged in claim 1.

As such, independent claim 1 is not anticipated by Chen or RFC 1771 and is patentable under 35 U.S.C. 102. Similarly, claims 15, 23 and 26 recite relevant limitations similar to those recited in independent claim 1 and, as such, and at least for the same reasons as discussed above, these independent claims also are not anticipated by Chen or RFC 1771 and are patentable under 35 U.S.C. 102. Furthermore, since all of the dependent claims that depend from the independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Chen and RFC 1771.

Therefore, the rejection should be withdrawn.

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Conclusion

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Michael Bentley at (732) 383-1434 or Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully submitted,

Dated: _7/19/07_

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